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Agriculture; Horticulture, Live Stock and Rural Economy.

THE OLDEST AGRICULTURAL JOURNAL IN MARYLAND, AND FOR TEN YEARS THE ONLY ONE.

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MIXED CROPS IN MARYLAND.

It is certainly a fact that some soils and localities are particularly adapted to grow special crops. We have personally visited and inspected such soils and localities and are well satisfied that this is the case. We saw enough in a part of Louisiana to convince us that sugar cane was well adapted to that locality. We have seen the flooded river bottoms which were particularly suited to the production of rice. We have visited the cranberry bogs of Massachusetts, also, and seen the propriety of growing that berry in those locations. We have even gone to Kalamazoo, Mich., and know that the lands there are especially fitted for celery culture. So, we have never for a moment doubted the advisability of growing special crops in special localities.

Nevertheless, we are heartily in favor of mixed crops on soils which do not indicate in unmistakable ways their want of adaptability to such treatment. Wherever corn, wheat or tobacco will grow, mixed crops of vegetables and fruits with a proportional growth of stock, are in order.

Maryland lands are especially adapted to these mixed crops, as are the vast body of agricultural lands all through this section of our country. On these soils we think it the very best policy to grow as large a variety of crops in vegetables and fruits as is possible, and only so much of the standard cereal crops as may be required for the immediate use of the farm.

Where a farm is devoted to any one crop a failure of that crop from any cause becomes a disaster; but where the dependence is not upon any one crop, the failure of one or two branches does not entail such ruinous consequences. For example: If your dependence is upon wheat alone and that crop is cut off by a bad winter, or by the fly, or by drought, all is gone. Or, the same if your dependence is upon tobacco, or cotton, or any one particular crop. If mixed crops are grown, there is little danger of such an experience as the variety insures a return from some of them.

Another important feature is the fact that in mixed crops of vegetables and fruits, a different system of culture is

brought forward and often a single acre will bring more profit than a dozen or more acres of wheat. This is constantly being proved in a practical manner wherever the mixed crop system has been adopted.

The recent introduction of the silo has added a great emphasis to our mixed crop system, for it has enabled the keeping of stock on a much less comparative acreage than before the silo was established. By reference to previous numbers of the MARYLAND FARMER instructions will be found for the building, filling and feeding from the silo. Also the various methods of growing and preparing the ensilage. In mixed crops of vegetables and fruits, the growth of ensilage insuring very heavy returns from small areas of land naturally follows. In fact we have gradually come to feel that the silo is an institution which should be on every farm. In the prosecution of the mixed crop system, it is a necessity where any stock is kept, and a farm without stock would be at best only half a farm.

Particularly in the neighborhood of cities and large towns mixed crops are the great paying methods of farming. Where land is high it is impossible to make farming pay in any other manner. Single acres must receive much fertilizing, much cultivation and much care, and the crops of vegetables and fruits must be such as will cover all the expenses and bring in a fair interest on the investment. It has been said with a great deal of truth that in ordinary methods of farming no profit can be made on land costing one hundred dollars an acre. In this vegetable and fruit system profit is made on land costing one thousand dollars an acre.

The great cereal crops belong especially to the Western lands which have been secured at a mere nominal cost, and where vast acres can be utilized in any one crop if desired. Here, in the East, we must have mixed crops if we would make our

farms produce for us anything more than a miserable existence, full of anxiety and care.

Small farms, mixed crops, high cultivation, are the mottoes which belong to the future.

SEASONABLE HINTS.

This is a busy time with agriculturists, therefore, "put not off for to-morrow what may be done to-day"—"*procrastination is the thief of time*"—are axioms that ought never to be lost sight of by any one who fully appreciates the fact, that promptness in all business is an important element of success. We presume the small grain crops have been threshed, grain garnered or sold, and the straw securely ricked in such a way as will turn off rain and snow, and preserve it clean, dry and bright. The corn has been laid by, we hope, from the fine rains about the time it was forming the ears, has matured into a large yield. It should be cut off close to the ground soon after the grains have glazed and hardened beyond the roasting-ear state, set in medium sized stooks, tied near the top with straw rope or small succor stalks of corn blades, so as to keep it upright and not easily blown down. It can be set in shocks as soon as cut down. By early cutting off corn, the grain is plumper, heavier and the fodder is very valuable as provender. If suffered to stand until the stalks harden and the blades dry, it really is of little use as food for stock.

Potatoes.

Give potatoes their last plowing, leaving a flat hill about the vines; every weed and sprig of grass removed, and keep them so by occasional hand-weeding. If grass takes possession, there will not be many bulbs, and they will be small.

Root Crops.

The root crops should be kept free of grass, and the land light. In the last working of the sugar beet and mangolds,

draw or throw the earth well up to the roots, it is better than to have them exposed a foot above the ground to the scorching sun. A heavy sprinkling of plaster and slacked ashes would help turnips and rutabagas.

Meadows.

Those, who design to sow grass seed for a permanent meadow, must plow the land deep, give it a good manuring, unless it is already rich, harrow it 'till in fine tilth, sow over it some good superphosphate fertilizer and 200 pounds of bone dust; sow the seed, harrow in lightly and roll—use a plenty of seed, and if the hay is intended for market, sow only one sort of grass; if Timothy, sow half peck per acre; if orchard grass or rye grass, two bushels, of red-top or bent grass, one bushel per acre. If it be contemplated for home use and the meadow to furnish after math for pasture, we would advise a mixture, like this: half peck Timothy, one gallon clover, six pounds Kentucky blue grass, one bushel each of orchard grass and rye grass, to be well intermixed or sown separately. If the land is clean and well prepared, highly fertilized and properly drained, there is no doubt but it will yield heavy crops of hay, and furnish a fine fall pasture for years.

Baltimore's Flowers.

The growth of Baltimore in fine houses in the general appearance of its streets and dwellings, as well as in the character of its stores and warehouses, shows evidence of the increasing wealth of its inhabitants. But, in walking through Eutaw Place, one evening, we were particularly impressed with the array of plants and flowers which make the centre of that delightful place a mass of beauty. To the intelligent lover of flowers, it is a place where one may linger to examine and admire. Everywhere in the public parks of Baltimore the same profusion of shrubs and flowers may be seen. The present wet season has brought out the foliage to a perfection seldom witnessed.

LIVE-STOCK INSURANCE.

The business of insuring live-stock against loss, by disease or accident, is not a new one in this country. Years ago companies were organized for this purpose in different sections of the country, but as a rule they were not successful, not perhaps from actual mismanagement, but rather from a lack of knowledge of how such a business should be conducted. As there were no statistics as to the mortality among horses and mules, there was no data upon which calculations could be made as to its cost. and, although experience has demonstrated that the rates charged were ample, yet the business was done so loosely that parties used the companies as a means of speculation and the result was in every case a disaster, very few ever attaining the age of one year, and after the failure of a large stock company from Hartford, Conn., the business was generally abandoned, and for a number of years there was not a live-stock insurance company in this country.

About five years ago, a few gentlemen in Baltimore conceived the plan of insuring stock on the mutual or assessment plan, applying pretty much the same principles as prevailed among life insurance companies who were doing business on the same basis. Some time was spent in maturing their plans, but on the 27th day of January, 1882, "The Peoples' Mutual Live-Stock Insurance Co.," of Maryland, obtained their charter and commenced doing business. The company was organized upon a strictly mutual plan, a small entrance fee being charged for expenses, and losses to be paid by assessments upon policy-holders. The success of the company in procuring business was something phenomenal—the company writing business in the city of Baltimore during the first year to the amount of nearly one-half million dollars. Such safe-guards were thrown around it

as were deemed necessary at that time, but experience demonstrated that further safeguards were necessary and that the rock upon which all live-stock companies had been wrecked, was *over-valuation* or *speculation*. A large percentage of all the insured during the first year had gone into the company as a speculation and not for *actual protection*. It is true that the company required an examination of all stock before insuring them, but it was not rigid enough, and the result was that losses were much larger than they should have been.

After the first year's experience the company determined to employ a veterinary surgeon and passed a by-law, requiring all policy-holders to notify the company whenever an animal become sick or disabled within ten hours after such sickness or disability occurred, under the penalty of a forfeiture of their insurance should they fail to comply. This particular feature the company thought saved them from disaster, as the result was soon shown in the lapsing of those policies that had been taken out on speculation. Those who had insured for actual protection remained in the company, and the character of the business was much improved.

The policy now issued by the company seems to be a fair contract, giving protection both to the insured and the company.

Five years experience has demonstrated that there is no difficulty in successfully conducting a Live-Stock Insurance Co. We learn that this company has written 20,000 policies and paid losses to the amount of nearly \$200,000, and to-day they say there is not a legitimate claim due and unpaid against the company.

Not long after the "Peoples'" obtained their charter numerous companies were started in Baltimore and elsewhere upon pretty much the same plan, yet none of them were successful. "The Peoples'

Live-Stock Insurance Company" to-day occupies the position of being *the oldest live-stock insurance company in America*.

This organization may be considered a permanent one and strictly reliable. No better compliment could be paid to it than the fact that it does the largest business right here in Baltimore, where its managers are well known.

We understand the company has extended its business into the States of Pennsylvania, West Virginia, Georgia, Tennessee and other points, and claims that it is doing more business to-day than all the live-stock companies in this country combined.

OUR FOREIGN LETTER.

PARIS, August 1, 1886.

When grass, etc., is intended for home consumption, several advanced farmers adopt the system of free open air ensilage, as practiced by M. de Reihlen. This dispenses with the silo or trench. The following represents the latest improvements for carrying out the plan of stocking green grass, clover, lucerne, vetches, etc. Select a horizontal site and peg off a rectangle, whose narrowest side will be five feet, corresponding with the covering planks which ought to be about eight feet, so as to allow the ends to project eighteen inches over each side of the rick. The length of the stack depends of course on the quantity of stuff to be stored.

In piling the forage spread it in regular, horizontal layers; build the sides up with the stuff rolled into bundies. This will ensure fresher solidity while offering more impermeability against the entry of air. Keep the centre of the stack slightly arched or concave, and fork up the stuff at each of the long sides by turn and so guard against any leaning. Make the carts throw up their loads at each side of the rick alternately. When the stack has attained the requisite height place the planks—which ought to be one good inch thick crossways; then a second row of similar planks, to lap over the joints of the first—slate fashion. Next, nail a few lengthways close to the edge of the stack to bind this

wooden floor. Then place large stones on the floor, at the rate of three-quarters of a ton to the square yard, or heavy logs of timber, chaining, &c. The full weight can be laid on gradually so as to give time to the mass to get over its first settling down. *All the secret lies in laying on this heavy weight to exclude the air.* Dig 'round the bottom of the stack, a trench eight inches deep to carry off the rain water.

When the fodder is required for use—it will keep good for six months, certain: roll back a few of the boulders and strip the requisite number of planks corresponding to the width of the trench to be cut, as in the case of an ordinary hay rick and its knife. Evidence is unanimous that the forage thus conserved is equal to that of the ordinary silo. It opens out when cut, with an agreeable, honey or cooked prunes odor. For the first four or five days the cows may take to it slowly, but afterwards they will not allow a fragment of their feed to be lost. Neither in quantity nor quality will the milk suffer. It is evident that the use of such fermented forage will enable the farmer to be independent of the weather, and exempt from the anxieties of hay making. Carted fresh from the meadow, there can be no loss of the delicate, nutritive leaves of clover or lucerne; all the chemical richness of the plants will be secured, and the cattle provided throughout autumn and winter with a fresh and appetizing alimentation.

Cheese.

France produces yearly Camembert cheese alone for the value of one million francs. A good cow is estimated to yield annually 550 gallons of milk to fabricate 1,260 Camemberts, and that sells for 530 francs. In Calvados there is a competition for farms, so much so, that rents have risen sixty to ninety per cent. This demand for land is between the cheese manufacturers and the fatteners of purchased lean stock. One farmer turns out as many as 500 Camemberts daily.

When the milk is brought to the dairy it is strained into earthen jars of a capacity of fifteen and one-half gallons. These jars rest on wooden stools, to be on a level, to run off the curd into the moulds; the morning and evening milkings are mixed and brought up to a temperature of seventy-nine degrees. The rennet, which is

purchased ready-made in the liquid form, is then gently stirred in from one to two tablespoonfuls per jar, following the season. In winter as many as five are employed. A perforated wooden cover is placed over the jar, and at the end of six hours when the curd shall have been well formed, it is ladled into tin moulds, which rest on rushes, and having rather small holes to allow the cheese to 'turn out' readily. The drainings drop into a Portland cement trough and are given to young pigs.

When well drained, that is, after thirty-six or forty-eight hours, the curd is turned out of the mould on the rushes and fine salt shaken on the surface which was next the bottom of the mould. Next, they are placed on shelves over the drainer, pending two days and re-salted; then they are transported to the drying room and ranged on open-work shelves covered with rye straw. The latter permits free handling and secures shape.

The drying hall is constructed so as to allow the currents of air to enter at various heights and intensity. Here the cheese remains twenty or twenty-five days to ripen. In humid weather the drying is hastened. At first the Camemberts are turned daily, then every second day; they become covered with brown spots, as if peppered, which in the course of eight or ten days spread into patches of white fungi that ultimately shade into a deep yellow. From the drying room the cheese is transported to the shelves of the ripening cellar: here a mild and uniform heat is maintained, but no current of air. The cheese is cellared during twenty to thirty days and requires keen attention, as this is the stage when worms may be developed. The cheese must be turned daily, and as it shrinks the fungus will disappear and the firmness augment. If worms show, they are scraped away and the part washed with salt and water. Winter is the season when this French *strachino* is in perfection. It is packed in parcels of six cheeses, separated by sheets of paper and in straw capsules. The best cheese sells at one franc each—but then the milk must never be skimmed.

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MAKING AND PRESERVING PERMANENT MEADOWS.

Condition of Meadow Essential Before Seeding. General Method of Sowing Grass Seed; Quantity of Seed. Orchard Grass, Red-Top, Blue Grass. Seed for Moist Ground, Seed for Damp, Rich Land, Seed for Dry, Sandy and Gravelly Soil.

When the land intended for a permanent meadow, or indeed for any meadow at all, is ready for the seed, it should present a level, smooth surface, free from furrows or marks of any kind. When harrow marks are left on the surface, the seed will gather in these and the grass will come up in the lines of them, leaving these too thickly sown and bare lines between them. This is especially objectionable when orchard grass is sown, for the habit of this grass being to grow in bunches, anything tending to increase the effect of this habit is to be avoided.

The sowing is to be done with the object of getting a perfectly even and regular distribution of the seed. This is effected by double-sowing, as well as by careful scattering of the seed. It is better to take narrow strips and to be sure to leave no vacant lines between them. It is best to sow heavy and light seed separately, as the heavier seed will be cast farther than the light. Moreover, the direction of the wind must be considered. It is best to sow across the wind. A broadcast seeder is very useful for sowing grass seed; but whether the seed is sown with a machine or by hand, I would sow it double—one sowing across the other—and the clover seed should be sown alone.

My method is to use the first two fingers and thumb and take up as much seed as can be held in that way for one cast, and to make a cast at every step. The steps are made by first advancing the left foot an ordinary pace, then bringing up the right foot on the line with the left, and as the right foot is moved to make the cast, throwing the seed up high and with a circular motion of the arm and a twist of the wrist, by which at the end of the cast and just as the seed is let go, the back of the hand is brought uppermost. This throws the seed in a level, broad sheet, which falls evenly from three to four feet on each side of the sower. A cast six feet wide is quite

enough to make, and with the quantity of seed taken will use up a peck, or fifteen pounds of clover seed and twelve pounds of Timothy to the acre, which is the quantity I prefer to use, thinking some seed in excess is better than having too little. If less is sown, the pinch of seed may be made smaller and less taken at each cast. A very short experience will teach this part of the business to any man who can figure a little. A cast six feet wide will cover one acre in 2,420 yards, and exactly eleven casts across a ten-acre square field; or twenty-two casts across a square five-acre field, twenty rods wide and long. Each pinch having one-fifteenth part of an ounce or half a teaspoonful, will make up precisely fifteen pounds of clover seed, and the same bulk at each pinch will expend twelve pounds of Timothy.

In sowing orchard grass seed, the quantity used is much larger, as two bushels per acre is the least quantity that should be sown. This will give as much as can be taken in a handful with the third and fourth fingers kept always closed, and the seed grasped between the first two fingers and thumb and the palm of the hand. This will make a full tablespoonful to a cast. Red-top and blue grass are sown at the same rate, unless in a mixture with other kinds.

The choice of seed depends upon the kind of soil. Low, moist ground that is overflowed at any time for a short period, is most suitable to red-top (*agrostis vulgaris*), Creeping Bent (*Agrostis stolonifera*), Fowl Meadow Grass (*Poa serotina*), Rough-stalked Meadow Grass (*Poa trivialis*), and Perennial Rye Grass (*Lolium perenne*), all of which do well on moist ground, and will not suffer from occasional flooding. Timothy will also do well on such land, and may be added to these in equal quantity; viz: an even proportion to make up two bushels by measure, or about twenty-eight or thirty pounds to the acre. Orchard grass does exceedingly well in damp, rich ground, but suffers from flooding. I have seeded a newly-cleared and drained swamp meadow with the above grasses, using six pounds of each to the acre, and it turned out very well, making an early and late crop of hay, and yielding fully three tons to the acre the first year, and before the grass had become firmly established.

White clover came into the drier part of this field naturally as soon as the drains had dried the land and grew luxuriantly, making a close thick bottom which helped the bulk of the crop considerably and improved the pasture afterwards. These grasses are in their prime from May to July and the earlier ones are green again late in the summer and in the fall.

For drier land and sandy and gravelly soils, there is no better grass than orchard grass, and it is not improved by any mixture with others. It has a habit of stooling or growing in bunches, but this is not particularly objectionable so long as the quantity of hay and pasture is satisfactory, and I have not yet known an instance in which any complaint of this kind has been made. It is no use fighting against Nature, and when the land is well prepared, the seed is sown as well as possible and covered evenly, and the grass *will* grow in bunches, it is foolish to make a fuss about it if we get the grass. Orchard grass is ready for cutting—that is, in full blossom—at the same time as red clover, and if anything is sown with either of these it should be the other. But for a permanent grass I know of none better than orchard grass for hay or for soiling; and none for pasture, except Kentucky blue grass in those places only, however where the latter thrives the best, as in the West and Southern mountains. Elsewhere blue grass will not afford as much pasture as orchard grass.—*Henry Stewart, in Rural New Yorker.*

Garden Ensilage.

The *Horticultural Times Covent Garden Gazette*, one of the best department weeklies printed in the great city of London, the live paper in horticulture of the old world, gives the following interesting article, which we are glad to transfer to our columns:

“Ensilage on the Continent is not confined merely to crops for the use of animals, for many a small farmer in the Netherlands has his store of vegetables for use during winter. The method adopted is simple and inexpensive. An earthen jar about two feet high forms the “silo.” Into this put peas, kidney beans, or broad

beans until the layer is about six inches high; this is sprinkled with salt, and the whole pressed firmly down; another layer is then added with salt, and so on until the jar is filled. A substantial weight is then placed on the top, and the opening covered with brown paper. If sufficient vegetables are not obtainable, a light weight can be placed on top, which will exclude the air and keep all firmly pressed until more can be obtained to fill the jar.”

English Experiments with Fertilizers.

Sir. J. B. Lawes, who has been conducting agricultural experiments during the last forty years, at Rothamsted, England, has been accumulating facts and figures which should be studied by every farmer in all parts of the world. With regard to his field experiments, he has produced an average of fourteen bushels of wheat per acre without applying any manure or fertilizer. With twelve tons of farm-yard manure per acre each year he has obtained an average yield of thirty-two bushels, twelve quarts per acre; with mineral fertilizers, fifteen bushels and one peck; with nitrogenous fertilizers, twenty-two bushels, with complete fertilizers, thirty-two bushels and three pecks.

These experiments prove that wheat can be raised for a long series of years by concentrated fertilizers as successfully as by farm-yard manures. They also prove that if the former are unskillfully used, the results are about the same as when no manure or fertilizer is applied. The chief practical lesson to be drawn from these experiments is that if farmers would study the requirements of their soil, they could always utilize fertilizers profitably, while by the hap-hazard mode of application, such as at present exists—using any brand for any soil or crop—the chances of continuous success are so rare that it would not be advisable for them to risk the purchase of any fertilizers.

AN exchange says that the most independent creature on earth is a farmer, a man who has one hundred and sixty acres of land out of debt, with a little good stock, good health, a good wife, and sense enough to keep out of debt,

THE YOUNG FARMERS CLUB.

I once was young and now I am old. I have seen many hundred farmers' organizations started to benefit the farmer, and I have seen them, one by one, die the death of inaction, and no good was done to the poor farmer. I saw the Grange, the best organization ever given to farmers, spring up like a young giant and I have seen it struggle along like an old man in his dotage, and at last die out. Now for all this there is a reason and I believe I have found what it is:

1. It is nothing more nor less than want of proper business education among the farmers.

2. It is want of a defined purpose among the leaders.

3. A failure to make these meetings pleasant and profitable.

4. And last, but the worst of all—jealousy of farmers.

I have for years visited the Grange. They met, opened and then after a few minutes' talk closed the Grange. Nothing was done to amuse or interest the members; there was no discussion of any topic of interest to farmers. No one spoke, and although there was a lecturer he never had anything to say. So the members soon lost interest in the meetings and cease to go.

I have clipped the following from some paper and as it is pertinent to this subject, I will give it to you:

"It is observed that farmers find it hard to get along with each other in any co-operative work; they cannot, we are told, long co-operate in buying or selling, in the use of farm machinery, in stock-breeding, in dairying, land-working or anything else as a rule, even where the law sometimes imposes co-operation, as in school districts or road working. What fierce quarrels arise that tear up the neighborhoods and breed bad blood for a generation! How often do we hear in the country, as the moral of some attempt at neighborhood co-operation: "No more partnership for me" or "There never was a house big enough for two families to live in?"

Now, young men, these are truths, and herein lies all the trouble. Can you eradicate it? Can you teach the farmer to rise above these petty jealousies; can you

induce him to read newspapers to inform himself of what the world is doing, to store his mind with thoughts, that he can discuss instead of his neighbors faults?

It is a shame that farmers have allowed their little petty quarrels to militate against the interest of the whole class.

Now, young farmers, go to work. Try and have confidence in each other. Be men enough to do your duty and rise above these little neighborhood quarrels; they are too pitiable and mean for brave, good men to indulge in.—*Ec.*

Sand in Agriculture.

A Vermont reader of the *Farmer* expresses surprise at the evident good effect produced upon a piece of grass by spreading upon it a quantity of common sand, such as is used by masons for making mortar.

It is no new thing to find grass helped by applications of sand or gravel spread upon the surface as a top-dressing. Sand is mostly fragments of broken stone. If the stone was chiefly quartz, its fertilizing value will be less than if composed of lime or potash-yielding material. The mineral food taken up by vegetation must originally have all come from the stones in our soil, which are gradually being worn down by the elements and by the direct action of the roots of plants. Sand and gravel have also an influence upon many soils by lightening them and letting in air and making them more readily absorbent of moisture. Air and water should circulate with moderate freedom through our agricultural soils, and sand and gravel mixed into stiff clay greatly improves it for agricultural purposes as well as for brick making. Just how sand helps grass when spread upon the surface may not always be easily explained. It may help some as a mulch, covering the roots a little deeper. It may hurry up the decomposition of the vegetable matter on the surface which then becomes a fertilizer, and it may yield of itself a little mineral plant food needed by the grass.

Very little sand is so poor that it will not be worth using in moderate quantity for dusting stable floors or for bedding the animals in warm weather. Sand thus mingled with manure prevents it from

becoming compact and lumpy. Such manure is always like old compost ready to spread for immediate use without expensive handling over. Many look upon the soil of our fields much in the light of ballast to hold plants and trees in position and to a certain extent this view is a correct one. Gardeners find very sandy soils can be made highly productive by the application of fertilizer and some kind of mucky or carbonaceous material to absorb and retain moisture. Even the siftings from the machines that break boulder rocks into road material, are found capable with a little artificial fertilizer of growing good garden vegetables. Under many abrupt cliffs, as by the rocky walls of the Niagara river banks, the great fissures at Ausable and Watkin's Glen, in New York State, where the rock itself pure and simple, is gradually peeling and scaling and falling from dizzy heights and collecting in piles at the bottom, may always be seen some form of vegetation growing in apparently clear rock fragments. Do not despise a sandy farm and do not neglect to use sand freely in the stables when it can be had cheaply.

An Idea for Farmers' Boys and Girls.

Mention has been made of the young people of the farm. There are a score of ways in which country boys and girls may become interested in out-door recreation, and through which they will lead more contented lives. The longings for the pleasures and enjoyments of the great city world, of which they know so little and desire to know so much, may be satisfied, in a measure, at home. A great deal can be accomplished by association; to them more than to their parents the isolation of country life is a source of dissatisfaction. Why not find a partial remedy in the club?

There is scarcely a rural neighborhood in the eastern portions of the United States where a club of fifteen or twenty young people, with a definite object in view, could not be formed in a very short time. It might be a lawn-tennis club or a driving club; a shooting, fishing or athletic club—for the boys—or, perhaps, better than these, that would include walking, driving, tennis, boating, fishing, and the many out-of-door pastimes that young people of

both sexes indulge in. During the winter months there would be skating-meets and sleighing-tours, to extend over several days, and ice yachting, which would give amusement to both sexes, and be indulged in wherever there are streams or inland lakes. Even the bicycle and tricycle should have a place in the barn with the family carryall, both for the relaxation of muscles strained and sore from long hours of bending over uncongenial toil, and as a saving of horse flesh on many an evening errand to town. Let there be associations and clubs, and perhaps club championships with inexpensive prizes for excellence in social field of sport, and the most beneficial kind of mental and physical relaxation and recuperation will result. And perhaps if the old folks were very, very good, they might become associate members of the club, and renew their youth.—*Outing.*

Good Things for the Table.

RIPE CURRANT PIE.—(Made with only one crust.) One teacupful of ripe currants crushed, one teacupful of sugar, two teaspoonfuls of water, one teaspoonful of flour, the yolks of two eggs. After baking use the whites of the eggs with two teaspoonfuls of pulverized sugar for meringue.

BREAD SAUCE.—Put one pint of milk on to boil, slice one onion in the milk, leave in ten minutes, then strain and add two teaspoonfuls of bread crumbs, butter the size of a walnut, one dessertspoonful of granulated sugar, pepper and salt to taste. Put all in steamer over hot water for an hour and a half at least, even longer if you have time.

BEAN SALAD.—One quart of beans soaked over night, in the morning pour off the water, put enough fresh water on them and boil until thoroughly done. When cool, add an onion about the size of an english walnut chopped very fine and moisten the whole well with a mayonnaise dressing seasoned rather highly with salt, pepper, cayenne and mustard.

STRAWBERRIES.—If you have not a plenty of this fine fruit, prepare a bed at once, get choice varieties and set them out.

THE DAIRY.

MANUFACTURE OF CHEESE.

We have frequently called the attention of Farmers to the subject of "cheese making" through the columns of the *MARYLAND FARMER*. We are greatly interested in the establishment of cheese factories for the benefit of neighborhoods, for it is to the advantage of families to be relieved of as much heavy work as is possible. Cheese is, however, a great addition to the Farmer's table, and every family will find it profitable to have it, even though forced to make it at home. We therefore give below the process for making a prime article.

The following article describes the manner in which the sweepstakes' premium cheese at the last Fat Stock and Dairy Show, at Chicago, was made:

Preliminary Hints.

To make good cheese you must have, in the first place, the best quality of milk, and then the best arrangements for working it up. To have good milk the cows must have good pasture, pure water, and must be treated kindly. Nothing should be done to make a cow overheat her blood, as it will affect the quality of the milk. Cows should be milked in a clean, well ventilated stable. A stable cannot be kept too clean.

Decomposing manure generates large quantities of ammonia and other foul gases, which are readily absorbed by the milk. The oils in the milk readily absorb noxious odors; and water, which constitutes the largest part of milk, will absorb seven hundred times its volume of ammonia.

The food and water of a cow readily show themselves in the milk. In one case where cows were watered at a stagnant pool, their milk was found to contain animalculæ in great numbers, and upon examination of the water and cow's blood, like animalculæ were found. The cows were also in a very feverish condition. One day last August I had floating curd. In ten minutes after I saw the first indications of a floating curd, the curd was

all on top of the whey. In the morning when I was taking in the milk, I noticed a peculiar smell to one lot, but there was no sour taint to it. After I got my cheese to press I went into the pasture where I suspected the trouble was. There was a stream of water running through it. The cows were standing in the other end of the pasture from where I entered, and were drinking in the stream. I followed it along until within a hundred feet of the cows, when I found a decayed ram's head in the water. Particles of decayed matter were breaking away from it, and the cows were drinking water, decayed matter and all. I removed the head and continued my search, but found nothing more. The next day I had a floating curd, but it was not so bad, and the third day it was hardly perceptible. Thus you will notice that it took two days after the cause was removed for their systems to be entirely freed from it.

The cans must be perfectly clean and the milk must be strained at least twice before it gets into them.

The night's and morning's milk must not be mixed, and must all be cooled to free it of all animal heat. To cool milk, the cans should not hold over 140 pounds when full, and they should be placed in a tub that is deep enough, so that when the water is turned in, it will come up as high on the outside as the milk does on the inside of the can. The milk should be stirred to keep the same temperature through the whole body of it, and as often as the water in the tub gets warm it should be replaced by cold. Where the can holds more than 140 pounds, the milk cannot be cooled enough. If it is not cooled it will taint.

Process of Making.

The patrons should get to the factory as early (especially in warm weather) and as near together as possible, so that the cheese maker can get to work on it ahead of any decomposition that may be taking place in the milk. The cheesemaker should start the heat so that by the time the last milk is all in, it will stand from 82° to 86° F., according to the temperature of the surrounding air.

After the color is put in, stir in enough rennet to thicken in twenty minutes and coagulate in thirty minutes. Stir lightly on the top with a dipper to keep cream down until the milk begins to thicken. As

soon as the curd will stand before the knife, begin cutting and cut until at least as fine as corn.

As soon as the curd is cut, apply heat and raise temperature at the rate of 1° every five minutes up to 98° or 100° F. Curd is a very poor conductor of heat, and therefore the necessity of cutting fine and raising temperature slowly that it may cook evenly and not the most on the outside of the lump or kernel, thereby holding the whey in the middle of it.

When the curd hardens, draw whey and drain thoroughly. As soon as it is pretty well drained, salt it at the rate of two and one-half pounds of salt to every 1,000 pounds of milk. About half of the salt should be put on and stirred in, and after standing a few minutes, the rest should be put on and stirred in thoroughly.

In milk is five degrees of milk-sugar or lactose. Three per cent. of this passes off in the whey and two per cent. of it goes into the curd. That which goes into curd breaks up into lactic acid by a chemical re-action, each molecule of lactose making four molecules of lactic acid. The lactic acid in turn acts upon the remaining lactose, forming butyric, ether, alcohol and some other gases. There is in the curd calcic, ferrie and magnesic phosphates. They go into the composition of the blood, nerve and brain substances, and the strength of the human skeleton is due to the amount of calcic phosphate it contains. It is therefore necessary that we get these in the cheese. The lactic acid dissolves these phosphates, and if the whey is not drawn before the acid begins to form they run off in the whey and are lost.

The lactic acid also cuts the fine oils out of the curd and they run off in the whey, thus damaging the quality of the cheese. For these reasons, I especially urge the drawing of the whey as soon as the curd hardens. Then, again, the gases, as fast as they form, have a better chance to pass off if the curd is not under the whey, but exposed to the air.

The curd should be aerated, being stirred occasionally, until the lactose is all decomposed, when it will string two inches in fine threads on a hot iron. It is then ready to put to press. If the curd is put to press before the lactose is all decomposed, the gases formed from the still decomposing

lactose will form little cavities, from the size of a pinhead to the size of a pea, or larger, thus making what is termed 'porous' cheese.

As soon as it is ready the curd should be put to press, having in the meantime been lowered in temperature to 75° F. The press should be tightened slowly, so that the curd will press together well. Great care must be taken in dressing the cheese, as it has a great deal to do with the looks of the cheese after it is on the shelves.

When the cheese is taken out of the press, it should be wiped off nicely and immediately placed on the shelves and the ends greased lightly. The cheese should be turned and rubbed every morning before the milk is taken in. The curing room should be well ventilated and so arranged as to keep the temperature within a range of 60° to 65° F. The cheese should be watched and carefully wiped and rubbed, for the best cheese can be spoiled by not being properly cured.—*The Farmer*.

Weighing Milk.

Says the *Scientific American*: "To those who have no lactometer or who find difficulty in reconciling its readings with their experiences in judging of milk, it may be interesting to know that a quart of good milk should weigh about 2.15 pounds or nearly 2 pounds, $2\frac{1}{2}$ ounces. Water at 68° F., weighs 2.0885 pounds. Of course skimmed milk shows a heavier gravity in proportion to the amount of cream taken off, as the addition of water also lightens the milk. Weighing milk will give the monthly yield in quarts more exactly than measuring. Probably not one farmer in ten has any definite idea as to the average yield of his cows, in pounds or quarts. Those who have never tried keeping a record of the milk yield, will find it a profitable and perhaps a surprising experiment. One thousand pounds of average milk contains:

Caseine.....	32	pounds.
Fat.....	36	"
Milk Sugar.....	45	"
Mineral Matter.....	7	"

One-fourth of all the hogs slaughtered by packers in the United States are killed in Chicago.

Do Cows Need Exercise?

This much-mooted question is of quite recent origin. It is natural to suppose that all animal life needs exercise in order to retain all its functions in healthy activity. But what kind of exercise? Not very much locomotion is needed in secreting milk. Even general health is maintained with quite moderate exercise. Do not cows get considerable exercise in stepping around, getting up and down, reaching for food, and licking themselves when so confined as to be permitted to do so? In Holland cows are confined in a hot stable at the beginning of winter, and are not let out until settled warm weather. This, at first, seemed incredible; yet all witnesses testify to the healthy condition of the Holland cows. Gradually, during the last few years, American dairymen have more closely confined their cows and kept them warmer than ever before, not only keeping them in warm stables, but resorting to artificial heat and giving them warm water to drink. Thus far, all testify to the beneficial results arising from these practices. It is not the nature of a cow to exercise much. She prefers in the open field to quietly crop the grass until her stomach is full, and then lie down in the shade and peacefully chew her cud with a dreamy expression of the eye that denotes rest and enjoyment. She does not run and cavort like the horse. This is not her mission.—*Nat. Live-Stock Weekly.*

How To Milk.

A milker should learn to milk quickly. Slow milking will ruin any cow and there is little doubt that many cows are made unprofitable by bad milking. As soon as the flow of milk begins, it should be drawn as rapidly as possible. Stripping with the finger and thumb is a bad practice and should be unlearned at once, and the whole hand used to milk with. By perservering one will soon be able to milk very short teats if the hand is moderately small. The best milkers have small hands; strength of wrist will come in time.

Subscribe to the MARYLAND FARMER, with a premium, only \$1.00 per year.

Our Capabilities of Production.

Edward Atkinson, a writer of some note, in an article in *Bradstreet's* shows to how small an extent the producing capacity of this country is developed. The area of the country, not including Alaska, is in round numbers 3,000,000 square miles. To produce our corn crop of 1,800,000,000 bushels, at an average yield of 25 to 30 bushels per acre, only requires about 4 per cent of this area. At 13 bushels of wheat per acre only 2 per cent of our total area is required to produce 500,000,000 bushels. Putting the annual hay crop at 40,000,000 tons and the yield at 1½ tons per acre, less than 2 per cent is required. One per cent will produce our oat crop of from 500 to 600 million bushels at an average yield of 30 bushels per acre. And two-thirds of one per cent will produce our average crop of cotton of 6,000,000 to 7,000,000 bales at a yield of one-half to three-fifths of a bale per acre, and one per cent will cover all minor crops such as potatoes, barley, rye, flax, etc.

Accepting these figures it will be seen that only a little more than ten per cent. of our area is utilized in producing the crops of the country. But under a good state of husbandry, such as is practiced in Great Britain and on the continent, the yield per acre in this country might easily be doubled, supporting double the population it now does without any increase of acreage under cultivation. A large percentage of the uncultivated area, comprising nearly ninety per cent. is mountain, forest, desert or grazing lands, much of which, especially in all that portion east of the great plains region is susceptible to cultivation and production equally with that now under cultivation. We have scarcely as yet begun to test the productive capacity of this country, and shall never fully test it 'till the pressure of mouths to feed compel to better methods in agricultural production.

A handful of linseed meal fed to each cow or horse at least three times a week will not only regulate the system and promote health, but will also loosen the skin and keep the animal from becoming hide-bound.

HORTICULTURAL.

CHEAP TURNIPS.

The cultivation of a crop of turnips, the thinning out to a proper stand and consequent loss of money in the seed thus bought to be thrown away, but more than all—the time and patience required to effect a proper thinning when the seed are sown in drills—all add considerably to the cost of the turnip crop.

For the best results, or when growing turnips for market, these items are, perhaps, a necessary part of the investment. But for growing them for stock alone, a less expensive mode may be followed.

Select a piece of thin, poor land, not likely to run quickly to grass, and, instead of sowing in drills, scatter the seed broadcast and apply a liberal amount of fertilizer-phosphate. Bone phosphate at the rate of 400 pounds per acre will ensure a fair yield of turnips on even poor land. and as the soil does not yield grass readily there is no particular need for working the crop. Hence all the cost of cultivating is obviated and no plants are thrown away on account of thinning. The turnips do not cost anything except the fertilizer, seed and sowing, and if the ground is well prepared and the stated quantity of phosphate is applied, very fine turnips are often produced in this way. If the soil is of a kind that continues mellow and there is not much grass, (as there should not be on thin land), the yield will pretty nearly equal the best results of the drill system. The turnips are easily taken from the soil by running a shovel plow over the ground.

The chief advantage of this way is: thinning is obviated and there is no subsequent cultivation. It will not work except upon poor soil and with plenty of fertilizer, but you thus get a piece of poor ground in fit condition for some other crop. On rich

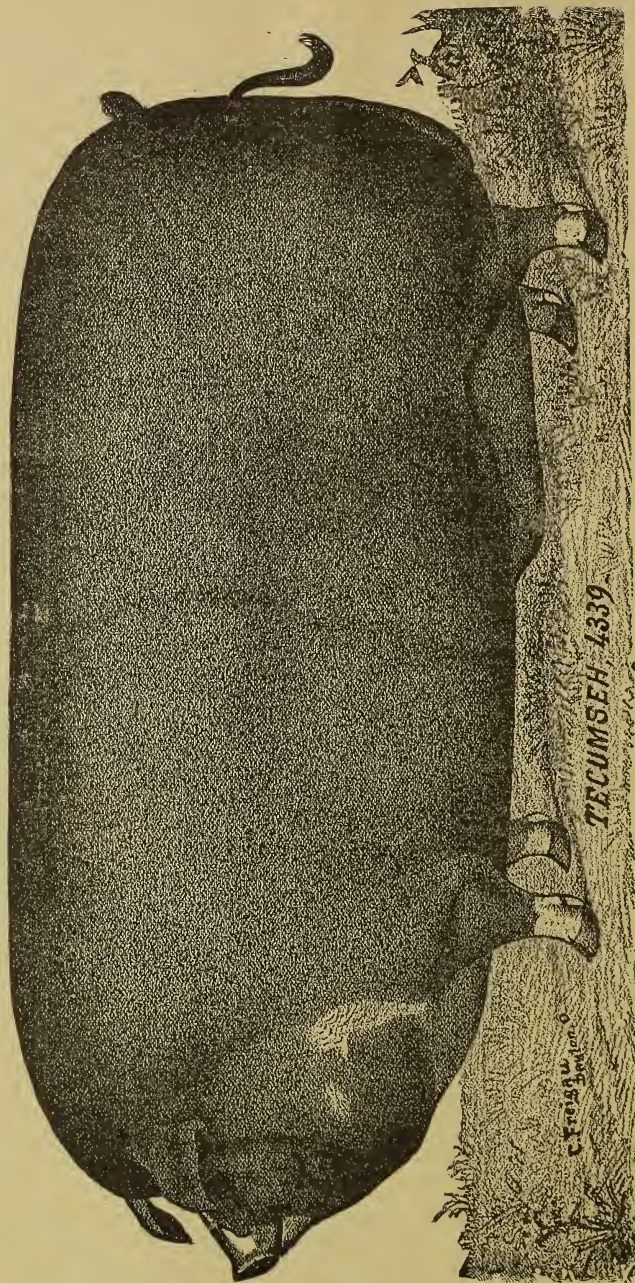
soil grass would be sure to overcome the turnips, sown broadcast and failure would be the result. With fertilizer it is cheaper to grow them on poor soil.

LATE SOWN PEAS.

The recent dry weather has been testing the peas. Heat will bring out their character as quickly as anything, and it also tests the best modes of culture and soon shows the result. On light, shallow soil the straw soon becomes yellow, the pods wrinkled and the peas hard and dry. We recently saw some rows which were in this condition, and the owner could not understand the reason. Plenty of manure had been forked into the surface before the seed was sown, and it was thought they would luxuriate in this, but they did not when the dry weather came. It was then they could not be understood, but in asking about the sowing the matter soon became clear. The drills when opened for the reception of the seed were not deeper than three inches; consequently all the most important roots were very near the surface, and although the manure was there it was dried up when the warm weather came, and the result was almost a failure of what might have been a fine crop. In another garden I could not help saying, "What very fine peas!" "Yes," said their owner, "that is the advantage of deep digging and deep sowing. The ground was trenched twenty inches deep, and the seed was put down nine inches from the surface." This made the mistake in the other place quite intelligible and I resolved to practice deep digging and deep sowing for summer peas. It was a treat to see the deep sown ones, and the roots being well down from the influence of any drought were growing and fruiting in the most luxuriant manner possible. A KITCHEN GARDENER.

CALIFORNIA FRUIT GROWING.—The estimated number of fruit trees in California, is as follows:

Total number of trees, 8,000,000, divided as follows: Apple, 2,700,000; peach, 1,200,000; pear, 500,000; plum and prune, 600,000; cherry, 400,000; apricot, 500,000; orange, 1,600,000; lime and lemon, 500,000 Grape vines in bearing condition, 70,000 acres.



OWNED BY J. W. COFFMAN & BRO., DANVERS, McLEAN Co., ILL.

LIVE-STOCK REGISTER.

POLAND CHINA.

Our illustration this month is a picture of the noted Tecumseh, 4339, for which the present owners, Messrs. J. W. Coffman & Bro., of Danvers, Illinois, paid the handsome sum of \$500.00. The herds of these gentlemen are said to contain representatives of the best families of Poland Chinas that have ever been produced.

THE STABLES.

"Keep the stables clean" is a rule that should be observed at all seasons, but particularly at this. Horses are often made to suffer a great deal on account of the filthy condition of the stalls and swarms of flies and mosquitoes that daily and nightly at this season bite and sting them. A filthy stable is a disease-breeding stable.

Bad odors and dampness are at the bottom of nearly all the ailments that afflict horse-flesh at this or any other season. It is perhaps impossible to keep down all smell of ammonia, &c. at this period of the year, but the amount may be greatly reduced and rendered practically harmless, by the use of a few simple disinfectants and proper ventilation.

To accomplish this object, the littering used should be short and capable of absorbing the liquids and odors. While forest leaves or strain of grain will do this in winter well enough, perhaps, such substances are entirely unfit for summer use. The best summer bedding that we know of is fine or oak sawdust from the lumber mills. This material in short is a great absorbant, makes a clean, cool bed, and is, wherever it can be had at all, very cheap and likewise easy to handle. With sawdust for bedding it is easy to keep a stable clean.

But, if at any time much odor should arise, a smart sprinkle of plaster will be likely to correct the fault. There are many reasons for the frequent application of land-plaster to the stalls of animals, and the manure of stock. It promotes cleanliness and is therefore conducive to health, is all that need be urged here. But as a mere disinfectant, carbolic acid is far superior to anything that we have tried. A spoonful of it put in a gallon of water and sprinkled around will speedily and thoroughly remove every unpleasant odor. And the same applied to the neck, ears and sides of the horse with a sponge will keep off flies and mosquitoes better than any remedy known to us. With this acid and sawdust, no Farmer has any excuse for a filthy stable.

Wholesome Meat.

We can not have wholesome meat unless we slaughter healthy animals. Hence, it stands beef growers in hand to keep and deliver their beef animals to the butcher in a perfectly healthy condition. A long drive to market used to make "tired" beef, which was far from being as nutritious as that slain before the animal had been exhausted in vitality by a long and tedious journey. A long ride by rail is by no means a condition most conducive to perfect health and the best beef. Hence the steer should have a good, peaceful rest, with plenty of pure water and good nutritious food before slain. These are unhealthful conditions, in the sense of deteriorating the quality of the beef, which is thereby so far rendered unwholesome for human food.

We have more particular reference, however, to actual disease, resulting from improper conditions and surroundings. These are not likely to be present on the range or in the pasture, if there is ample provision for pure water. It is easy to disease man or beast by giving them impure water to drink. Typhoid fever is generated in this way, and a long train of malarial diseases have the same origin. But who thinks of the effects of the water drunk by cattle? Yet, water unfit for human beings to drink

is unfit for animals to drink; and we do not suppose any one knows how many cattle are made sick by impure water, or have dumps, fever and chills which nobody notices because they do not complain. The same may be said where animals are stall-fed and have only impure air to breathe. Improper food and improper feeding add to the list of diseases or amount of sickness suffered by cattle; and we have no doubt many a really sick beef is slain and has its carcass cut up into tempting pieces for human food.

How many of the ills that human flesh is afflicted with may have their origin in eating diseased meat, not even the doctors know. That some of them do is demonstrated time and again: but unless the case is very marked and certain, the origin of the sickness is not likely to be traced to the meat eaten. But those horrible afflictions—trichina and tapeworm—come unmistakably from eating diseased meat; and the meat becomes diseased because the animal eats food containing the seeds of disease.

Then, how important is it that the growers of beef should see that the food and all the surroundings of the cattle are clean and conducive to the best health? This is not only due to the consuming public, but secures to the beef grower the best results in growth and money in pocket. *Live-Stock Journal.*

Breeding for Sex.

With the certainty of the recurring seasons, and far more often does the man with a new or old recipe in disguise, come forward to teach us how to breed for a sex at will. Knowing how anxious cattlemen are to get females, they find them easily duped with any plausible theory. The notion that is just now going the rounds is that the right testicle begets males and the left females. Under this rule we should think the entire bull would beget hermaphrodites. But the fact is, the male is just as potent with one as with two testicles, and begets male and female just the same. Where the point of determining the sex lies has not yet been discovered, much less has it been brought under man's dominion. It is very questionable if nature will ever let us into that secret, for, if it should,

fashion or some other whim of man might destroy the species by making all of one sex.

A theory so plain as the above ought not to impose upon any one, for, if true, it would have been found out thousands of years ago; for it is a common accident for bulls to lose one of their testicles, when the peculiarity of begetting but one sex under such conditions, would be patent to the most unobservant. It may be set down as a rule that this secret will never be found out, except through the science of physiology and by men who are expert in the anatomy of the bull and cow. Blind credulity may occasionally hit upon a remarkable coincidence, but its fallacy will soon come to the surface and disabuse your mind with a rude shock. Whatever may be accomplished in the future, one thing is certain and that is at present, under any state of the case, taking one season with another, the sexes will be just about even, male and female, each after its kind.

Hogs' Bristles and Hair.

After the hogs are killed in the great slaughter houses of Chicago, they are dropped into a cistern of boiling water, where the hide is thoroughly scalded. A machine then scrapes the hair and bristles off before the meat is cut. The hair and bristles are then separated, the bristles dropping out readily on account of their stiffness. They are taken to the roofs of the houses and spread out to be dried by the sun.

The hair is then loaded on wagons and taken out to the field prepared for the purpose and dumped. There the men with rakes begin their work of gardening. They spread the hair in layers as thin and even as space will permit, shaking it up to allow the air to pass through and to dry it thoroughly. Whatever foreign matter, such as pieces of hide or dirt, may be in the hair, generally drops out when it is dry and is shaken with the rakes.

When the hair is dry it is taken back to the packing-house and put into a steam press that makes compact bales of comparatively small size. It is then sold to the wholesale hair dealers by weight. A single packing-house in Chicago sends out ten or twelve wagonloads to the hair fields every

day in summer. About one pound of hair is taken from every hog and that is seven-eighths bristles. There were killed and packed in all the packing-houses of Chicago during the year ending March 1st, 1886, nearly 5,000,000 hogs, yielding nearly 2,500 tons of hair and bristles.

Some of the packing-houses have machines to curl and comb the hair before selling it. Most of the houses, however, leave those processes to the hair dealers. The hair is used principally for the upholstering of furniture. It was sold last year by the packers at four cents a pound, wholesale, but it is now sold at five cents a pound. The bristles sell at from fifteen to eighteen cents a pound.

VETERINARY SCIENCE IN NEW YORK STATE.

The Legislature here has set a most laudable example to other States in fostering the science of animal medicine and surgery, as one of the liberal arts.

At the recent deliberations in the Legislature a bill was introduced to make penal for anyone to assume the title of veterinary surgeon, who does not hold a genuine diploma from some veterinary school in good standing, duly incorporated and recognized.

This bill I am pleased to say passed, and becomes an "Act of Assembly of 1886."

How often have we been pained to see our domesticated animals drugged and dosed by the most ignorant horse or cow leech, and even that more sublime and itinerant horse doctor, "The Homœopathic Pretender makes one shudder to think over past reminiscences:"—of those, who, when kind nature performed a cure, ascribed it to some ridiculous compound containing one truth and a dozen errors.

Again, the brutal acts of cruel torture, called surgery by these ignorant men of the dark ages, cry aloud in my ears now!—Operations for a "wolf" in the tail of a cow down with spinal paralysis, boring for hollow horn—hence the desire to introduce

the Buffalo cow or Polled Angus breed to stamp out "*hollow horn*"—to say nothing about hacking, cutting and burning our horse patients, oh, horror!

The advances made in all the liberal arts and sciences in Europe have reached this country, the veterinary art excepted. And why is this? Simply because the States do not or will not recognize the educated veterinarian the educated young man will not embrace the profession.

In New York there are many gentlemen practicing the profession who have proven their superior ability, and their demands have been so urgent that this Act has been made a State law.

Surely if the dentists need State protection from empiricism, the more important (to me it appears) profession of veterinary medicine needs protection from the State.

All Europe has been alive to this and lately Canadians have driven their "quacks" over the border.

The immense capital represented by live-stock, the fearful rush from inroads of disease, must surely, at no distant date, rouse our legislators to foster this profession in the State of Maryland.

At this present we do possess one or two excellent practitioners, one of them, Dr. Robt. Ward, F. R. C. V. S., our State Veterinary Surgeon, stands high in the profession and is very popular. I hope that our State will follow New York and demand similar protection.

W. F.

THE recent decisions of our Southern and of our English friends, pronouncing the MARYLAND FARMER to be the best of agricultural journals, should prompt its readers to show it to their neighbors. The subscription with a valuable premium, is only one dollar per year.

Keeping a Cow on Two Acres, To Be Beaten.

The talk about keeping one hundred cows on a two-hundred-acre farm has attracted considerable attention. It appears it has been done elsewhere, and is to be beaten by the man who does it. Here is what a correspondent says about it in the *Chamber of Agriculture Journal*, London.

"I have long advocated a system of cultivation, which, upon many soils is the most economical of any that I believe is known. What can and what can not be produced per acre many excellent farmers will not attempt to show, but that immense quantities of food can be produced by means of high farming brought about by the aid of cow stock, and that cows themselves can in consequence be fed upon a much smaller space of ground than has hitherto been believed, there can be no doubt whatever. I do not feel at liberty to describe a farm which I might instance as an example of the system which might more commonly be followed with profit, but this, I may say, that with over a hundred cattle in milk, a newly acquired holding has in a very short space of time been made to carry one head to just about two acres, and this is shortly to be beaten, as the occupier finds he can carry still more. Considerably more than half the acreage is in forage crops—rye grass, clover and grass mixtures, lucerne, vetches, trifolium, etc. The plan of soiling is adopted, and the silo is an important element of the farm. For example, a fortnight before hay-making, indeed, about the first of June, some 220 tons of fodder was put into a silo with very little trouble. Here is a golden store to fall back upon, even for such a herd as the one in question; and yet the same field which produced it is rapidly producing its second cutting. The cattle were being fed a few days ago upon green food, the first crop not being all cut, although that first cut had grown so rapidly that it was almost fit to cut again, and would alone carry on the herd until the end of July. Yet there are two or three other very heavy crops, most of which will, however, find their way into ricks and silos. Cabbages and roots are also largely produced, but efforts will be made to dispense with the latter in consequence of the expense at-

tending their cultivation; and this will doubtless be done, as the silage is found to do its work well. There appears to me to be a possibility of our achieving much greater things with dairy cattle than we have done, so many have been frightened by bogeys in the form of proverbs, of which agriculturists are often very suspicious. "It is better to be over-rented than over-stocked," says one, but this is now the reverse of true—absolutely so. The more stock the more crops. A maximum number of cattle on a minimum quantity of land necessitates artificial feeding, and this is just what makes the soil fertile, and so the ball set rolling by heavy stocking, heavy feeding and heavy cropping, brings grist to the farmer's mill. High feeders almost always find it pays, and the extent of the purchases of a judicious farmer in artificial foods is often the measure of his success and the condition of his farm. A landlord wants no covenants with such a tenant; indeed, he ought to be retained at any cost, if he only pays his rent.

Garlic Flavor in Milk.

Many dairy cows are giving "oniony" milk. This comes from eating the wild garlic which is too frequently found in our pastures. The taste is worse at night, and passes away somewhat as the milk cools. The butter appears to be slightly affected. Cows seem to prefer the weed while it is young and tender; as it grows older and tough they care less for it. This suggests one means of shortening its power to do damage. Keep the cattle out of the pastures until the grass has a better growth. The garlic is hard to eradicate when once it gets a footing in the pasture. Sheep nibble it down, but will not wholly drive it out. It can be killed only as other weeds are destroyed—by hand digging or by using the ground for hoed crops and practicing clean culture. This plan is impracticable in many cases, as pastures are hired or of such poor soil that no decent hoed crop could be raised without all the manure that is produced on the farm.

CLEAN cultivation is essential to good crops. This often takes work, painstaking, tedious hoeing and weed-pulling.

APIARY.

INDUCEMENTS TO BEE-KEEPING.

BY A. J. COOK.

Among the attractive features of apiculture, I mention the pleasure which it offers its votaries. There is a fascination about the apiary which is indescribable. Nature is always presenting the most pleasurable surprises to those on the alert to receive them, and among the insect hosts, especially bees, the instincts and habits are so inexplicable and marvelous that the student of this department of nature never ceases to meet with exhibitions that move him, not less with wonder than with admiration. Thus bee-keeping affords most wholesome recreation, especially to any who love to look upon the book of nature and study the marvelous pages she is ever waiting to present. To such, the very fascination of their pursuit is of itself a rich reward for the time and labor expended. I doubt if there is any other class of manual laborers who engage in their business and dwell upon it with the same fondness as do bee-keepers. Indeed, to meet a scientific bee-keeper is to meet an enthusiast. A thorough study of the wonderful economy of the hive must from its very nature go hand-in-hand with delight and admiration. I once asked an extensive apiarist, who was also a farmer, why he kept bees. The answer was characteristic: "Even if I could not make a good deal the most money with my bees, I should still keep them for the real pleasure they bring me."

The profits of apiculture urge its adoption as a pursuit. When we consider the comparatively small amount of capital invested and the relatively small amount of labor and expense attending its operations, we are surprised at the abundant reward that is sure to wait upon its intelligent practice. I do not wish to be understood here as claiming that labor—yes, real, hard, back-aching labor—is not required in the apiary. The specialist, with his hundred or more colonies, will have at certain seasons hard and vigorous work, but this will be both pleasant and healthful, and will go hand-in-hand with

thought, so that brain and muscle will work together. Yet this time of hard, physical labor will only continue for five or six months, and for the balance of the year the apiarist has or may have comparative leisure. Nor do I think that all will succeed. The fickle, careless, indolent, heedless man will as surely fail in apiculture as in any other calling. But I repeat, in the light of many years of experience, where accurate weight, measure and counting of change, exclude all conjecture, that there is no manual labor pursuit where the returns are so large when compared with the labor and expense involved.

Adaptation to Women.

Apiculture may also bring succor to those whom society has not been over-ready to favor—our women. Widowed mothers, dependent girls, the weak and the feeble, all may find a blessing in the easy, pleasant and profitable labors of the apiary. Of course, women who lack vigor and health can care for but very few colonies, and must have sufficient strength to bend over and lift the small-sized frames of comb when loaded with honey and to carry empty hives. With the proper thought and management, full colonies need never be lifted, nor work done in the hot sunshine. Yet right here let me add, and emphasize the truth, *that only those who will let energetic thought and skillful plan, and above all, promptitude and persistence, make up for physical weakness, should enlist as apiarists.* Usually a stronger body and improved health, the results of pure air, sunshine and exercise, will make each successive day's labor more easy, and will permit a corresponding growth in the size of the apiary for each successive season. One of the most noted apiarists, not only in America, but in the world, sought in bee-keeping her lost health, and found not only health but reputation and influence. Some of the most successful apiarists in our country are women. Of these, many were led to adopt the pursuit because of waning health, grasping at this as the last and successful weapon with which to vanquish the grim monster.

BEANS, cucumbers and potatoes, once seriously cut by frost, will not make a satisfactory growth.

POULTRY HOUSE.

DARK BRAHMAS.

These partake of the same excellent qualities which have made the light Brahmas so very popular. They do not reach

Brahmas. They can be kept in close confinement and be contented. They eat very little comparatively, and fatten very rapidly after attaining their maturity. Being of a dark color their plumage does not show the dirt in wet weather and they always look fresh and tidy. They are a grand fowl, and fit companions for their



BRED AND OWNED BY MR. WILBUR B. HALL, MERIDEN, CONN.

so great a weight as the light Brahmas and have the reputation of being not quite as hardy and laying not so large an egg. At the same time they are said to lay a greater number of eggs in the year. They are, in other respects just as profitable as the light

light brothers and sisters, so long at the head of poultry stock.

The cut illustrative of the "Dark Brahmas" is kindly furnished us by Mr. Wilbur B. Hall, a well known breeder of "Dark Brahmas," of Meriden, Conn.

POULTRY IMPROVEMENT.

One of the greatest improvements which can be effected in the chicken world is to change all the large combs into pea-combs, Especially is this desirable in the Plymouth Rocks and Leghorns. If the combs of the Leghorns could be prevented from freezing in winter, their value as winter layers would be added to their present great value as layers in warm weather.

Another great improvement is to get rid of the feathers on the legs and feet of all those splendid Asiatic breeds, which now are the pride of the poultry breeders. It would be a great blessing to look upon a flock of the noble Brahmas or Cochins and not find them soiled and drabbled by wet and by mud.

Would it not be worth a special premium in some of our fairs to have these improvements brought forward. It seems to me more desirable that certain defects in the breeds should be remedied, than that a prize should be given for leg and toe feathers and for fully developed single combs of huge proportions.

Past experience of poultry breeders will warrant us in believing that these changes could gradually be accomplished without destroying any other characteristics of the breeds.

W. R. H.

Caponizing.

My experience in teaching people to caponize has in a very practical way brought to my attention this fact: that the art of caponizing a fowl is regarded by the larger portion of poultry-raisers and farmers as an operation that they never for a moment would think of undertaking to perform—something that in their minds is very difficult to do and that they could not possibly ever learn, to caponize a cockerel—and so they never try. I experienced the same feelings, but after I had made up my mind that if another person could do it, I could, and engaged a first-class teacher.

I was not an hour under his direction, before I could caponize a fowl perfectly—of course not as fast and handily as I can now, but just as well for all practical purposes. There is not a reader of this article who cannot do the same, if they will only set about it.

If this fear or dread of undertaking it that I know really exists among poultry-raisers and especially farmers, could be overcome and every one could be induced to caponize their fowl, the increase in the production of chicken meat in this country would be perfectly enormous. Calculate it yourself. Probably ninety per cent. of the cockerels that are grown are sold for consumption. A cockerel will weigh say from five to eight pounds. The same cockerel, had he been caponized when three months old would have weighed when sold from eight to twelve pounds—a gain of from three to five pounds. How many pounds and dollars would this gain amount to in the United States in one year? It would surprise the natives! Furthermore capon meat is worth at least ten cents a pound more than chicken meat, and has also been so quoted in the markets.

With all these facts existing, it is a wonder that the active American has so long delayed learning to caponize his cockerels. I say "learning" for I believe it is very necessary for a person to be taught how. It may not take them ten minutes to learn, but it is very desirable to have some one who understands the art to stand by to give the benefit of their knowledge and experience, to answer the many questions that the learner will ask, and to be ready at a moments notice to help the novice out when his patience is exhausted, as it very likely will be on the first few subjects. But when he has performed upon his tenth bird or so it is amusing to the teacher to see how independent his pupil has become, and with what assurance he goes at the next "victim." The novice has learned the art and the teacher's occupation is gone with that pupil.

It is very important and necessary that proper tools be used in caponizing—not only that it is much easier and quicker done, but that the fowl shall experience as little pain as possible. People of ingenuity may invent tools to suit themselves. I invented some of my own design, which do

the work quickly, thoroughly and well.

Let me urge every one to caponize. If you never have, begin at once, when your chicks are three months old. Get a set of tools with directions and go at it. No matter if you do kill a dozen birds in your first attempts; they die just as easy a death as though their heads were cut off, (and just as quickly if they are going to die), and there is nothing lost as they will make excellent broilers for dinner. Try it, and when you receive your money for your first capons you will be well satisfied.—GEO. Q. Dow, in *Poultry World*.

How Long Do Fertilizers Last ?

In attempting to arrive at some arrangement, says an English journal, by which renters of farms in England could secure remuneration for the labor and expense of keeping up the fertility of the farms, the conclusion arrived at was that lime applied to hill pasture is supposed to last fifteen years, one-twentieth to be exhausted the first year, and one-tenth a year up to the seventh inclusive, one-twentieth from the eighth to the thirteenth inclusive, and one-fourth each of the two remaining years; when applied to permanent grass other than hill pasture, is held to last for twelve years, one-tenth being exhausted each of first eight years, and one-twentieth each of the last four, and when applied to arable or meadow land to be exhausted in eight years, one-tenth the first, two-tenths each of the second and third and one-tenth in each of the remaining five years. Undissolved bones applied to permanent pasture to last for ten years, the rate of exhaustion to be similar to that of lime on arable land. When applied to arable land in rotation of crops, it is supposed to be exhausted at the rate of five-tenths the first year, two-tenths each of the second and third and one-tenth the fourth, and when applied to meadow land is supposed to exhaust at the rate of four-tenths the first year, four-tenths the second and two tenths the third. Dissolved bones, phosphatic guano and potash, applied to arable lands are calculated to vanish at the rate of six-tenths the first year, three-tenths the second, and one-tenth the third. Superphosphates disappear on arable land, it is assumed, at the rate of eight tenths the

first year and two tenths the second. Nitrate of soda and sulphate of ammonia go with one crop. The manurial residue of purchased cakes, etc., consumed on permanent pasture is supposed to have effect five years—one-tenth going the first year, three-tenths each of the next two years, two-tenths the fourth year and one-tenth the fifth year. On meadow land the duration is three years—five-tenths being exhausted the first year, three-tenths the second and two-tenths the third years.—*Tribune and Farmer*.

Wool Waste.

At the New Jersey Agricultural Experimental Station the use of wood waste as a fertilizer, is recommended, it being strongly nitrogenous and furnishing the most difficult of all fertilizing materials to be obtained. Experiments were made with it in various forms, the most beneficial of which was the application of the waste directly to the soil and following its application with some form of potash. But the conclusion reached was that it is made the most available and valuable by using it in the compost heap. It then has a chance to ferment and decompose, while the carbonaceous material in the compost heap absorbs and retains the ammonia. The language of the station report is that "as a waste product with which to enrich compost heaps, wool waste can hardly be overestimated. As an absorbent it ranks very high." Of course, wool waste can be obtained in considerable quantities only from large manufacturing establishments. But the fact of its value as a nitrogenous fertilizer should prevent its being allowed to become a total loss. The time is not far distant when all available fertilizing material will have to be saved, and the sooner this economical process is begun, the better will it be for the future of the human race.

COMMON wooden clothespins may be gilded and then decorated with small flowers painted in oil, and used as napkin-holders at parties. They make very pretty souvenirs.

To the Editor of the Maryland Farmer.

THE MOON'S TERRESTRIAL INFLUENCE.

Are we, as farmers, a "moon-struck" class?

As one of them, I must confess the truth of the implication. Our belief, unquestioning and steadfast in the sway of the beautiful queen of the nocturnal hours, over so many mundane matters directly affecting us is really mysterious. We take it for granted—take it as certainly true—that everything that any and everybody asserts relative to her control over wind, water and weather is all so, never resorting to our own faculties of observation and determination to confirm or confute such assertion or assertions as the action of these forces of ours may render inevitable. We hold, that she gives us in her changes hot weather and cold weather, dry weather and wet weather, and that in her especial interest in the potato she causes a failure of the crop unless it is planted in a particular phase of hers. We hold, never considering whether it is so reasonably or in fact, that when she is waxing she draws the tops up tall and dwarfs the tubers, but when waning she restrains the growth of the tops and swells the tubers. We hold, also, with the same indifference to the fact as to what observation might in the matter prove that when the moon swings low in the Southern heavens that the weather will be warm, when it courses high it will be cold. The rainy moon is one when new that the lower cusp is so low that the powder-horn string could not be hung on it, but slide off, and the dry one is the one in which the cusps are more nearly on a level, so as to hold the powder-horn string and then the airless and cloudless moon can pour out no water upon us.

In the following clipping is a reference to another moon effect on us. It is a clipping from a letter addressed to Professor N. B. Webster, of Yonkers, N. Y., relating mainly to the pear blight, which has been so disastrously destructive to the trees last season and this, and requesting his views with respect to the cause:

"Please give me your views on the above and pardon my frequent requests in the solution of intricate subjects, among which was the *reason why frosts are more liable*

to occur *on the full of the moon* than at other times. The reply was interesting and instructive. Respectfully,
G. F. B. LEIGHTON."

It will be seen that the author is another of those people who think that the queenly orb, that courses in beauty,

" * * * * * in the night
Of cloudless climes and starry skies,"

has been meddling with our meteorology.

But what *is* the effect of the moon's action on our earth?

Mr. G. F. Chambers, an authority in both hemispheres, says, in substance that the moon is the principal cause of the tides. There are two of them; one of them nearest the moon and by its direct attraction the other one on the opposite side of the earth from the moon, caused by the moon's attraction of the earth leaving the waters of the ocean heaped up. "Besides the moon's influence in elevating the water of the ocean, that of the sun is to some extent concerned, but it is much more feeble," the solar globe being far more distant. He further says, "When the sun, moon and earth are in the same straight line with each other, that is to say, when it is either *new* or *full moon* the attractions of the two former bodies act in the same line and we have the highest tidal elevations, and what are known as "spring tides;" when the moon is 90° from the sun, its attraction acts along a line which is perpendicular to that along which the sun acts, the two tidal elevations are 90° apart," and are called "neap tides."

But in one matter more, the moon exerts an influence on the earth. Sir John Herschel says: (he agrees with Mr. Chambers, as to how it produces the tides,) "Though the surface of the *full moon* exposed to us must be very much heated—*possibly* to a degree exceeding that of boiling water—yet we feel no heat from it, and even in the focuses of large reflectors it fails to affect the thermometer. No doubt, therefore, its heat (conformably to what is observed of that of bodies heated below the point of luminosity) is much more readily observed in traversing transparent media than direct solar heat, and is extinguished in the upper regions of our atmosphere, never reaching the surface of our earth at all." This view of the matter is rendered probable "by the *tendency to disappearance of clouds under full moon,*"

and to conclude the subject, he says: "As for any other influence of the moon on the weather, we have no decisive evidence in its favor."

The foregoing shows the extent of the moon's influence upon physical matters and the earth's meteorology. To attribute then to her satellite any appreciable effect on the weather or influence on the growth of crops, it will be seen, is the sheerest nonsense. And this any man of keen observation can demonstrate clearly by keeping a needful record of crop operations. The time to plant potatoes or any other crop is when the season comes and the ground can be manured and put in order. If the cultivation is good, then, and the rains seasonable, the crops will be good. The farm operations should be so, conducted always, as to result steadily in an enlargement of the understanding and an increase of knowledge. Hugging a delusion all the life is not creditable to any class.

L. S. ABBOTT.

Falls Church, Va.

To the Editor of the Maryland Farmer.

THE POTATO CROP.

There is no crop that with reasonably favorable conditions can be more easily produced and that will pay better for the labor expended than the potato.

It can be grown in any fairly fertile soil, but where quality is desirable, in one of a sandy character.

As a rule the potato will succeed best where a sod that has not been under the plow for a long time can be devoted to that crop. In such a case with judicious manuring or fertilizing the tubers will be much more likely to be smooth and free from scab than if grown upon long cultivated fields.

It is not always best to make use of too much green stable manure in growing potatoes, lest the tendency be to run to an excessive growth of vines to the diminishing of tubers or to a diseased condition of the same.

We have had excellent luck in growing potatoes by turning over an old sod, spreading the surface with horse manure and then thoroughly harrow, whereby the sod is torn in pieces and the manure well mixed.

To secure a sure crop the planting should be almost as early as the ground can be worked, as then the potatoes will get a good start before dry weather comes on, which, unless they are well started, very seriously retards their growth.

The planting should also be to a good depth and then there will be less danger from drought.

If the soil is inclined to be worse and fear of injury from rains is felt, put a good quantity of horse manure on the bottom of the furrow and then plant the seed on this and there will be little danger. It is important that they be kept clean while growing: to allow a mass of weeds to get the ascendancy of the growing crop, is about as good as an insurance for a failure, as potato tubers will not develop when the soil is being sapped by a growth of vigorous weeds.

WM. H. YEOMANS.

Columbia, Conn.

Apples As A Dessert.

A nice dish for dessert is made by peeling some tart apples and removing the cores, leaving the apples whole; stew the apples in water enough to completely cover them, and when soft so that you can pierce them easily clear through with a tender broom splint, lift them out of the water and let them drain on a colander. Then to the water in which the apples were boiled, add sugar enough to sweeten it well; let this come to a boil, then drop the apples in and let them come to a boil; take them out again and place them in a jar. To the hot syrup add an ounce of gelatine dissolved in a pint of cold water. Let this come to a boil, then pour it over the apples. The day after they are cooked these are ready for the table. If a small quantity only is made, put it into the dish in which it is to be sent to the table, or put it into a mould and turn it out on a platter. Serve with cream if possible.

WE call our readers' especial attention to Barkley's brands of coffees, which have given the very best satisfaction where used. When you purchase of your grocer, ask for Barkley's coffee, and you will get just what is stated on the package.

THE PRESIDENT'S MESSAGE ON THE OLEOMARGARINE BILL.

Nothing has pleased us more in the discussion of this bill than the message of President Cleveland, in which he sets forth his reasons for signing the "Oleomargarine Bill," and the passages in reference to the general subject of the true deserts of agriculturists.

He meets in a few words the objections to the bill and sets forth the revenue feature in the only light which can justify the measure, viz:

"The constitution has invested Congress with a very wide legislative discretion, both as to the necessity of taxation and the selection of the objects of its burdens. And though if the question was presented to me as an original proposition I might doubt the present need of increased taxation. I deem it my duty in this instance to defer to the judgment of the legislative branch of the government, which has been so emphatically announced in both houses of Congress upon the passage of this bill. Moreover, those who desire to see removed the weight of taxation now pressing upon the people from other directions may well be justified in the hope and expectation that the selection of an additional subject of internal taxation, so well able to bear it, will in consistency be followed by legislation relieving our citizens from other revenue burdens, rendered by the passage of this bill even more than heretofore unnecessary and needlessly oppressive."

The objection that the bill is intended to destroy the manufacture of oleomargarine is met by the very just reply:

"I am convinced that the taxes which it creates cannot possibly destroy the open, legitimate manufacture and sale of the thing upon merit which its friends claim for it, and if the people of the land, with full knowledge of its real character, desire to purchase and use it, the taxes exacted by this bill will permit a fair profit to both manufacturer and seller. If the existence of the commodity taxed and the profit of its manufacture and sale depend upon disposing of it to the people for something else which it deceitfully imitates, the entire

enterprise is a fraud and not an industry, and if it cannot endure the exhibition of its real character which will be effected by the inspection; supervision and stamping, which the bill directs the sooner it is destroyed the better in the interest of fair dealing."

This is the position which we believe to be held by the great body of Farmers all through our country. They are well satisfied to meet all honest and competition, but they are not willing to compete with what carries on its face a fraud, and is sold almost wholly by means of falsehood, either open or implied. The bill is a just one in that it secures the sale of oleomargarine for just what it actually is.

The President then proceeds to speak of the incidental effects of the bill upon general farming interests, and he utters words which we feel proud to record as coming from the highest officer in our country. They set forth facts which we have repeatedly had occasion to assert in the past, and upon which the agriculturist can rightfully claim the recognition and aid of the general government.

"There is certainly no industry better entitled to the incidental advantages which may follow this legislation than our farming and dairy interests, and to none of our people should they be less begrudged than our farmers and dairymen. The present depression of their occupation, the hard, steady and often unremunerative toil which such occupations exact, and the burdens of taxation which our agriculturists necessarily bear, entitle them to every legitimate consideration. Nor should there be opposition to the incidental effect of this legislation on the part of those who profess to be engaged honestly and fairly in the manufacture and sale of a wholesome and valuable article of food, which by its provisions may be subject to taxation."

The President's suggestion in the closing parts of his message that the phraseology of the law be so improved that the invitation of or substitute for butter be clearly and definitely set forth, is a very

important one. We trust it will meet with the prompt action which the subject deserves on the next assembling of Congress.

We close this article with one more extract in which the President expresses an opinion, which has become very current during this discussion and excitement, but which, we fear, the facts will not fully justify:

"Not the least important incident related to this legislation is the defence afforded to the consumer against the fraudulent substitution and sale of an imitation for a genuine article of food of very general household use. Notwithstanding the immense quantity of the article described in this bill which is sold to the people for their consumption as food, and notwithstanding the claim made that its manufacture supplies a cheap substitute for butter, I venture to say that hardly a pound ever entered a poor man's house under its real name and its true character."

FARMERS who are in want of fertilizers this fall are invited to notice the advertisement of Slingluff & Co., one of the most extensive dealers in our country. All who deal with them will find them prompt, honorable and just, which should give general satisfaction. Their prices, also, are such as will invite examination.

THE EXHIBITION of the Sandy Spring Horticultural Society will take place at the Lyceum, Sandy Spring, Montgomery county, Md., on Thursday, September 9th, from 1 o'clock to 4 o'clock.

POWDERED charcoal and sulphur mixed occasionally with the feed for poultry, whether the birds are young or old, are excellent ingredients.

As soon as a crop appears above ground it needs cultivation, both to kill the weeds and to admit air to the roots of the plants.

EDITORIAL CORRESPONDENCE.

OLD ORCHARD ME., Aug. '86.

Once more on my summer vacation! The city of Baltimore, with all its stirring scenes, is only a vision in the far distance; the FARMER, however, links me still to the city of my choice. While I sit comfortably before the fire, I recall the many incidents of the trip I have just taken.

From Baltimore to Old Orchard it is indeed a delightful journey of about 500 miles, made in a continuous ride of twenty-four hours. Leaving Baltimore at 10.45 A. M., by the limited express we arrive in New York in time to take the Fall River boat connecting with cars, which, passing directly through Boston, reach Old Orchard by eleven o'clock the next morning.

At this season the travel on the Fall River line of steamers is immense, two of their magnificent steamers leaving each end of the line every night. The appointments are complete in every particular, and nowhere else in the world are more of the conveniences for travel to be found than upon these steamers. The entire journey from Baltimore is made with as much ease and comfort as if sitting in an easy chair in your own parlor at home.

Of course, I have had no time to get more than a passing glimpse of the country and must defer any extended remarks until a future letter. The country never looked better than now, however, and I shall take as good an opportunity to examine it as possible. I shall pass up near the coast as far as Bar Harbor and on my return I shall pass through the interior, thus getting a comprehensive view of the State.

Every year shows more than the previous one that Maine has become a great resort for summer tourists. Both upon the mountains and the seashore may be met travelers from all parts of our country, seeking here the benefits of her bracing and health-giving atmosphere.

Maine is improving in fruit culture, particularly in the direction of apples; her orchards are becoming extensive and the quality of her fruit is very superior. Much attention is given to this department of the farm life.

In the lumber trade Maine has always led the New England States and she still stands at the head. She also holds the same position in ship-building, having a large and active capital devoted to this business. The fisheries jut at present have added to their usual importance a great element of excitement, which has culminated in threats of active hostility against the Provinces.

The ice business has grown from small proportions only a few years ago until now an annual cut is made of over a million tons, the great bulk of which goes to Maryland and the South.

I find that as a general feeling the people of Maine are growing to think more of their State than was formerly the case. They are less inclined to emigrate to the West and more inclined to stay at home and build up or develop the resources of their own State. Many who have gone West are returning, and they come better contented with the "old pine-tree State" than ever, and have no further desire to leave. Even the sunny visions of the South have no power to draw them, although even now the visitors are crowding around the ample fires in our hotel to escape the almost winter cold of this region. The month of August and yet the great fire here is a comfort with its genial warmth! But this is exceptional and doubtless will be remembered as "the cold August" in years to come.

W.

FAIR REFORM.

This is the month of agricultural fairs and there is no better time to demand reform in the management of the fairs than when the fairs are being held. Abuses have crept into the managements of our fairs, it must be confessed, and these have been so often written about that it is not necessary for us to enumerate them here; what we wish to do is to urge our readers to use their efforts to secure the reform of the abuses, and to point out to them that now is the time when they can do most effective work in this direction. The primary object of agricultural fairs is to benefit and promote the best interests of agriculture and kindred industries, and it is because of this fact that we are asked to support them. But it takes money to run a fair and those who put their money into a fair expect to get some return on what they have invested and naturally labor to that end. Also, exhibitors expect to make money, and those who attend the fairs go full as much for pleasure as anything else. Hence while it is contemplated that the fairs be held simply for the public good, in reality all parties have a selfish interest in them, and it is advancing these selfish interests at too great a length that leads to the features that disgrace our fairs. It is to make a greater return on their money invested that the fair managers license liquor selling and games of chance on the grounds; it is to increase receipts by means of a larger attendance that racing, military parades, etc. are made prominent and costly features. It is to advance their interests that exhibitors resort to those tricks which make the fairs teachers of trickery and of wrong standards.

From this follows two things: First, before we reform the fairs we must get rid of our own selfishness, and, second, we must give the fair managers to understand that through our efforts they will increase

For pure flavoring extracts send to E. and S. Frey, 342 W. Baltimore street. You can rely on their's being pure and strong.

their receipts by ridding the fair of abuses. This we can do, and do effectually, only by so far sacrificing ourselves as to stay away from those fairs which suffer abuses and patronizing those which are managed unobjectionably. It may be necessary to stay away from our own county fair and to attend one farther away, but we would better put ourselves to this inconvenience than to take our sons and daughters into a place full of whisky, gambling and racing, and among the disreputable characters that assemble at such places. The fair managers will not be slow to take the hint and reforms will be made as soon as they understand that the financial success of the fair is to depend upon the exit of immoral features.

CULTIVATING ORCHARDS.

In many of the States there are meetings of horticulturists to discuss the best methods of fruit culture and any improvements connecting therewith. At these meetings there is sure to be a discussion as to the proper methods of cultivating orchards, some contending that it is best to keep them in grass and others that it is better to keep the surface clean by growing hoed crops, such as potatoes or corn through them, while some contend for a clean surface—nothing whatever being allowed to grow but the trees themselves. It is difficult for any one to judge from these discussions which is the best plan. All advocates seem to have had fair and some excellent success on all sides; while there are some, and these are the major part, who find on whatever system, or rather lack of system, they adopt, it is of far more consequence to see that the trees do not lack food, and in the case of the apple especially, to take care that the borers do not make a home in the stems. No one would think of growing corn or potatoes without manuring, and yet thousands never think

that a tree is but a vegetable, and like other vegetables must have food also. If the tree has all the food it needs it will not mind how much other crops growing with it gets. A fruit tree is not of the dog in the manger class of organisms. If plenty of food be given, it will not make much difference whether grass or corn, or potatoes be grown with the trees, but if there is not enough food already for them, it is folly for the owners to divide the little they have with other crops.

GRANGERS' 13TH ANNUAL INTER-STATE PICNIC.

WILL BE HELD IN WILLIAMS' GROVE,
CUMBERLAND CO., PA., AUGUST 30TH,
CLOSING SEPTEMBER 4TH.

Excursion rates at reduced fare will be arranged over the principal roads in Pennsylvania and adjoining States.

Agricultural and scientific addresses, by prominent farmers and Statesmen, will be delivered on Tuesday, Wednesday, Thursday and Friday.

This is a free show. Visitors are charged no admission fee whatever.

The expenses of this exhibition are obtained by the collection of a fee from each exhibitor and from the sale of restaurant privileges, these being the persons receiving the greatest financial benefits from the exhibition.

[ED.—Very few of our readers but have attended some time during their lives the Methodist camp meetings. While the Grangers do not assemble for religious purposes, yet their camps partake of the same general character, with picnic festivities, social enjoyments, lectures and addresses on agricultural subjects, and a disposition to make others happy and enjoy happiness themselves. We have attended these gatherings and enjoyed them.]

WE call the attention of our readers to the advertisement of Levi Bar's clothing establishment. Give him a trial.

THE SILVER QUESTION AS IT AFFECTS PRICES.

Editor Maryland Farmer :

In your August No. I gave some reasons for the general depression in prices, a depression which is still going on and will not end 'till the attempted divorce of the two money metals of the world is stopped and silver restored to its place, as a co-equal of gold upon a ratio approximating that which it has held for ages.

To illustrate the working of the present policy in the competition we are now so keenly feeling with India, and to show that actual sales of silver do not fix the price of silver bullion, we must bear in mind that British India with a population, say 350,000,000 uses silver money. The large civil establishment, the army and the vast railway service, controlled by the Indian Government, entails a vast cost which must be paid in London. The vast patronage of such an establishment, controlled as it is by the Court party in London, swells the Home charges so that nearly \$100,000,000 is now annually drawn for on the Indian treasury payable of course in silver. These drafts, called "council drafts," are openly sold in London. 1,000£ in gold would last winter buy 1,250£, payable in India. Exporting merchants can thus buy exchange to pay for cargoes of wheat, cotton, jute, hemp, hides and corn, which are bought at the rupee value.

As the Indian mint is the only open mint and to-day the greatest absorbent of silver in the world, it is exported there and is building up the Indian trade and commerce at the expense of American and British Agriculture.

India's imports of silver for 1885 are reported to be \$52,197,000, estimated at our coinage value! In addition to this she made a net importation of \$118,000,000 of gold for the seven years ending March 30, 1885. This gold is presumably used mainly for ornamentation—about twenty millions of dollars per annum out of a total production of \$95,000,000 by all the mines in the world in 1885, of gold.

Is it any wonder that gold is growing scarcer and its purchasing power is increasing? In other words that commodities of commerce all measured by the gold standard are constantly shrinking in value?

The facts are patent and the causes are exciting the alarm of some of the ablest writers and financiers of the world.

The absorption of \$52,000,000 of silver from the total output of all the silver mines of the world, of \$115,000,000 by India alone, added to the large estimate for consumption in the arts, which some writers place at \$20,000,000 and others at double that amount, would certainly go to show that there is no large stock of silver bullion in any market. Enquiry has established the fact that there is none.

At a late meeting of the British and Colonial Chamber of Commerce, held in London, July 7, (as reported in the *Bankers' Magazine*, New York,) I quote from that, "*A resolution in favor of re-monetizing silver in Great Britain was carried after a long and animated discussion by a vote of 28 to 15.*"

Two members of the Chamber, from India, offered the resolutions on the ground that *the lower silver fell, the greater would be the stimulus to the Indian exports of cotton, wheat, corn, hides, &c.* Another member, a merchant in the India trade, argued that England had other interests to look after besides India, and that however much that dependency might be profiting from the fall of silver, there were greater British interests which required that silver should be re-monetized in England."

Are not American interests also to be considered by Americans? Our silver dollar coined at a ratio of sixteen ounces to one of gold is denounced by thoughtless if not brainless and unpatriotic Americans, as a dishonest dollar, while able and intelligent Britons are agitating for a restoration of silver money, and their coinage is at a ratio of fourteen and a twenty-eighth hundredth to one of gold.

Everlasting shame upon the Americans who are aiding this unholy work, be they editors or brokers! for they are both daily publishing the lawful dollar as being worth only seventy-four cents. Even our President in a letter to a member of Congress declared that the treasury vaults were filled with dollars that were then worth eighty-five cents!

This! of the dollar that will pay any debt, public or private, as well as gold.

Mr. Editor, will not your article on "Five Cent Corn," in the August No. arouse at-

tention and awaken enquiry, as to the true causes of the existing evils, which are loading down the industries of the country?

It matters not whether that Nebraska farmer is a debtor or not: the more he produces the poorer he is, for the price he got for his corn would not feed the labor it cost, leaving out the element of wages.

Instead of it being a lesson to those seeking a home in the West, it should be a lesson to every American farmer and planter and arouse them to action. Their power will be felt if they demand a change.

But, first they must realize the causes that have led to the present evils.

Can any cause be shown other than that gold is now the sole measurer of values and that it is getting scarcer?

We see prices depressed just as silver bullion is depressed, and that is going from bad to worse.

It is not more currency we need so much as the revivifying effect that a restoration of silver to its place of honor will bring.

Objectors say we have vast sums of unemployed money now. It is in the country, but the people have it not and can only get it by giving undue values in the products of industry. Like a patient suffering with congestion, the life-giving current is not distributed, its free circulation is checked, and if not relieved the end is not far off. Better perhaps a return to the primitive system of barter than be confined to a standard that proves insufficient. The commerce of the world has so increased that it needs all the silver and gold it has in currency, and the growing absorption of the two money metals in the arts and for plate and jewelry is alarming to many thoughtful people, for as wealth increases, so does this abstraction of the precious metals from coinage increase.

We must bear in mind that paper money is only a convenient substitute and to be really valuable, as such must be convertible into specie on demand. We want no inflation, with its attendant evils. A currency abundant for all the wants of commerce, based upon gold and silver we do want, and an end put to this war on silver. This is no question of party politics, but a vital one of political economy. A general election of our national law makers is near at hand.

Let every voter see to it, that his candidate is not an enemy to the restoration of silver, but in favor of its free coinage.

Ten words of American law will just as surely fix a stable value for silver bullion as British law has for gold bullion, which law was referred to in my last.

Charlottesville, Va. J. W. PORTER.

To the Editor of the Maryland Farmer.

SHOW ANIMALS FOR BREEDING.

I frequently see in the agricultural papers the recommendation to buy animals for breeding purposes at the fairs. This is often given as one reason for attending the fairs—the opportunities offered to select an animal of good pedigree and individual merit to be used to improve the animals on the farm. I consider fairs a very poor place at which to buy animals to be used in breeding. The first requirement of the showing at the present day is *fat*. It needs no argument to prove this; a visit to the show-ring will convince any reasonable person. Of course the breeders know what is most apt to bring them success, and are not slow to avail themselves of those means which will put their animals in the best condition for winning prizes; hence we find the cattle, hogs and sheep panting in their pens or stalls on account of their great fatness, and that their chief articles of diet are linseed and corn meal. An animal designed for exhibition in the show-ring is forced and fattened from the earliest possible moment, and is thus put and kept in a condition that must destroy its constitutional vigor, impair the health and healthful functions of its organs and develop its adipose tissue at the expense of bone and muscle. Such an animal is an uncertain breeder, because its great fat begets laziness and reduces sexual desire, and this loss of sexual desire and the general debilitated state of the organs of the body often cause an insufficient development and nourishment of the sexual organs. Quite a respectable percentage of these forced animals prove wholly impotent while the offspring of those able to beget or bear must lack constitutional vigor, be predisposed to disease, of impaired thrift and incapable of symmetrical development. None are better aware of this than the more advanced breeders, and of them many

notably among the breeders of swine, now have two herds—a show herd and a breeding herd. The former is designed for exhibition at the fairs only, although if any one is desirous to pay a good price for one of the animals for the purpose of using it in breeding, the owner is ready enough to part with it. But buying such animals so often leads to disappointment and loss that it can not be recommended. There is now a movement on foot to have show animals in only good breeding condition; but until that movement prevails there should be a wide distinction between breeding animals and show animals.

Quincy, Ill.

JOHN M. STAHL.

Entries for the Fall Trotting Races.

The executive committee of the Maryland Agricultural and Mechanical Association met on the 18th of August, in the office of the president, Mr. Frank Brown, on North Charles street, Baltimore, and opened the entries for the various events on the racing program for the meeting at Pimlico, September 13th to 17th, inclusive. Over one hundred horses were entered, some races having as many as sixteen in the field. All the races filled excepting the Maryland three-year-old colt race and the free-for-all race. The committee decided to substitute a 2:35 and a 2:18 class race for them, and to advertise them to close about September 1st prox. See advertisement on page V of the guide in this No. of the FARMER.

Books, Catalogues, Publications, &c.

BULLETIN No. 9, from the Entomologist of Agricultural Department, is a manual of instructions in Silk Culture, well illustrated and with the important facts clearly set forth, as a guide to those who would enter upon the work.

RECEIVED, the Report of Professor C. V. Riley, Entomologist, Department of Agriculture, for the year 1885. Devoted mostly to Locusts, The Silk Worm, Various Insects, Destruction of Minor Crops, and a small section to Experiments in Agriculture.

WE have received the private Catalogue of Crystal Spring Farm of Short-Horns and Shropshires. The sheep illustrations show the stock to great advantage. It will be sent to those interested on application to C. Hills & Sons, Delaware, Ohio,

Domestic Recipes.

A VERY NICE PUDDING.—Beat well together, one pound of white sugar with half a pound of butter, then stir in four well beaten eggs; grate half a nutmeg and mix in with a tablespoonful of flour, and season with the juice of a fresh lemon. Make a simple paste, spread it on tin plates and pour in the above mixture. Bake quickly.

HUNGARIAN POTATO SALAD.—Take small potatoes, boil and peel while warm. Slice very thin. To every pint of potatoes mince one small onion, one pickled beet, one fresh cucumber sliced, a Dutch herring, four sardines and a spoonful of minced, cold, boiled ham. Mix altogether and pour over a teacup of vinegar. Garnish with walnut pickles.

LOVE CAKE.—One cupful of powdered sugar, three tablespoonfuls of melted butter with three eggs, three tablespoonfuls of milk, one and one-quarter cupfuls of sifted flour, one and a half teaspoonfuls baking powder. Bake in three layers. Filling: two-thirds cupful rich, thick cream, three tablespoonfuls powdered sugar, one teaspoonful of vanilla. Whip altogether till very light, then spread between the layers of cake, which must be cool.

CHICKEN TERRAPIN.—Cut up a cold, roast chicken into very small pieces, being careful not to get pieces of the skin into the dish. Put it into a skillet with a tumblerful of cream (or milk), a good sized piece of butter rolled in flour, a pinch of mustard, a teaspoonful of salt, a small pinch of Cayenne pepper, ground cloves, nutmeg and mace. Have ready three hard boiled eggs, cut into small pieces, and a large wine-glass of wine. When the chicken has come to a good boil, stir in the eggs, remove from the fire and add the wine. Stir over the fire a few minutes and serve.

SEND to Samuel R. Waite & Co., No. 40 Hughes street, Baltimore, Md., for catalogue of steam pumps, etc.

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SOME idea of the necessity for preserving our forests in order to protect the valleys from disastrous inundations may be gathered from the fact that Dr. J. M. Anders. in the official report of the geological survey of Wisconsin, says that the average amount of water pumped from the earth and exhaled by soft, thin-leaved plants in clear weather amounts to about 14 ounces troy per day of twelve hours, for every square foot of surface.

CONTENTS FOR SEPTEMBER.

AGRICULTURAL DEPARTMENT.

Mixed Crops in Maryland.....	261
Seasonable Hints.....	262
Live-Stock Insurance.....	263
OUR FOREIGN LETTER.....	264
Making and Preserving Permanent Meadows.....	266
Garden Ensilage.....	267
The Young Farmers' Club.....	268
An Idea For Farmers' Boys and Girls	269
Good Things for the Table.....	269
Our Capabilities of Production.....	272
How Long Do Fertilizers Last?.....	282
The Moon's Terrestrial Influence.....	283
The Potato Crop.....	284
The President's Message on the Oleo-margarine Bill.....	285
Editorial Correspondence.....	286
Fair Reform.....	287
Cultivating Orchards.....	288
The Silver Question As It Affects Prices.....	289
Show Animals for Breeding.....	290
BOOKS, CATALOGUES, &C.....	291
DOMESTIC RECIPES.....	291

THE DAIRY.

Manufacture of Cheese.....	270
Weighing Milk.....	271
Do Cows Need Exercise?.....	272

LIVE STOCK REGISTER.

Poland China.....	275
Wholesome Meat.....	275
Hogs' Bristles and Hair.....	275
Veterinary Science in New York State	277
Keeping a Cow on Two Acres To Be Beaten.....	278

APIARY.

Inducements To Bee-Keeping.....	279
---------------------------------	-----

POULTRY HOUSE.

Dark Brahmas.....	280
Poultry Improvement.....	281
Caponizing.....	281

ILLUSTRATIONS.

"Tecumseh, 4339".....	274
Dark Brahmas.....	280